FIELD BORDER

(Acres)
Code 386

Natural Resources Conservation Service
Conservation Practice Standard

I. Definition

A strip of permanent vegetation established at the edge or around the perimeter of a field.

II. Purposes

This practice may be applied as part of a conservation management system to support one or more of the following:

- Reduce erosion from wind and water
- Soil and water quality protection
- Management of harmful insect populations
- Provide wildlife food and cover

III. Conditions Where Practice Applies

At the edges of cropland fields and to connect other buffer practices within the field. May also apply to recreation land or other land uses where agronomic crops are grown.

IV. Federal, State, and Local Laws

Users of this standard should be aware of potentially applicable federal, state and local laws, rules, regulations, or permit requirements governing field borders. This standard does not contain the text of federal, state, or local laws.

V. Criteria

The following criteria apply to all purposes.

A. General Criteria Applicable to all Purposes

1. Extent

   Field borders will be established around the field edges to the extent needed to meet the resource needs and producer objectives.

   All field borders will be at least 20 feet wide.

2. Vegetation

   The field borders will be established to adapted species of permanent grass, legumes, and/or shrubs.

   a. Seeding

      Plant material, seedbed preparation, seeding rates, dates, depths, and planting methods will be consistent with NRCS Field Office Technical Guide (FOTG), Section IV, Standard 342, Critical Area Planting.

   b. Existing Vegetation

      Field Borders may be established by leaving appropriate areas of existing pasture or hayland when rotating to cropland, where existing cover is sufficient to control erosion.

      Field borders may be established by use of natural regeneration. For grasses and forbs, remove all trees and shrubs for a minimum width of 20 feet or protect a minimum 20-foot strip for regeneration along the woodland border. Natural regeneration should only be used where volunteer growth will provide sufficient cover to control erosion. Weeds and brush must be controlled.

3. Concentrated Flow Channels

   Ephemeral gullies and rills present in the planned border area will be smoothed as part of seedbed preparation.

B. Additional Criteria to Reduce Erosion from Wind and Water

1. Water Erosion Reduction

   Locate borders around entire perimeter of the field, or as a minimum, install borders to

eliminate sloping end rows, headlands, and other areas where concentrated water flows will enter or exit the field.

If these areas are mowed for hay, the last cutting will not be later than September 15.

2. Wind Erosion Reduction

Locate borders around the entire perimeter of the field, or as a minimum, provide a stable area on the upwind edge of the field as determined by prevailing wind direction data.

Plant stiff-stemmed, upright grasses to trap saltating soil particles.

Minimum height of grass shall be one foot during the critical erosion period.

Two or more rows of adapted shrubs (see NRCS FOTG Standard 645, Wildlife Upland Habitat) may be planted along the edge of woods or other suitable areas.

C. Additional Criteria to Protect Soil and Water Quality

1. Reducing Runoff and Increasing Infiltration

Locate borders around entire perimeter of the field, or as a minimum, install borders to eliminate sloping end rows, headlands and other areas where concentrated water flows will enter or exit the field.

2. Maintaining Field Setback Distances for Manure and Chemical Applications

Border widths will be designed to conform to minimum field application setback widths established by state or local regulations.

3. Sediment Trapping

Locate borders around the entire perimeter of the field, or as a minimum, in areas where runoff enters or leaves the field.

4. Reducing Soil Compaction from Equipment Parking and Traffic

Border widths will be designed to accommodate equipment parking, loading/unloading equipment, grain harvest operations, etc.

D. Additional Criteria for Management of Harmful Insect Populations

1. Provide a Harbor for Beneficial Insects

Include herbaceous plants that attract beneficial insects. See planning considerations for more information on the use of shrubs.

Mowing, harvesting, and pesticide applications will be scheduled to accommodate life cycle requirements of the beneficial insects.

or

2. Provide a Habitat to Cause Pest Insects to Congregate

Select plants for the field border that attract pest insects.

Use mechanical, cultural, and/or chemical techniques to reduce pest populations when and where they congregate in the field border. (See NRCS FOTG Standard 595, Pest Management.)

E. Additional Criteria to Provide Wildlife Food and Cover

Plants that provide wildlife food and cover shall be used.

Mowing is allowed after July 15 and before September 15 for purposes of weed control.

Tall fescue will not be used in seeding mixtures developed for these purposes.

Adapted shrubs (see NRCS FOTG Standard 645, Wildlife Upland Habitat) may be planted along the edge of woods or other suitable areas.

Natural regeneration may be used to establish grasses and legumes as described under General Criteria Applicable to All Purposes. In additions natural regeneration may be used from shrub establishment. Remove trees from the woodland border for a minimum of 20 feet or protect a minimum strip 20 feet wide to encourage the growth of native shrubs. Non desirable tree and

brush species must be controlled. See NRCS FOTG Standard 314, Brush Management, for more information. DO NOT remove conifers or trees that have a high potential for future sawlogs, good den trees, or heavy mast-producing trees.

VI. Planning Considerations

A. Field borders are more effective and provide more environmental benefits when planted around the entire field.

B. Field borders enhance the aesthetics and provide stability around the field edge. They also provide turn and travel areas for equipment and reduce airborne dust

C. To increase trapping efficiency, consider establishing a narrow strip of stiff-stemmed upright grass at the crop/field border interface.

D. Field borders can be used to comply with required field setback distances applicable to manure and chemical applications.

E. The use of native plants and their wildlife enhancement and other benefits should be discussed during planning.

F. Consider overseeding the border with legumes for plant diversity and wildlife benefits.

G. Waterbars or berms may be needed to breakup or redirect concentrated water flows within the borders.

H. If bank stabilization is a concern, select fibrous deep-rooted plants.

I. Consider plants tolerant to sediment deposition and chemicals planned for application.

J. Rows of shrubs adjacent to field borders will often enhance field borders ability to harbor beneficial insects, and may also provide additional wildlife benefits.

VII. Plans and Specifications

Plans and specifications are to be prepared for the practice site. The following items should be specified. Conservation Practice Job Sheet 386, Field Borders, is available to document these items:

- Border widths and lengths based on local design criteria
- Location within the field or farm boundary
- Vegetation to be used
- Site preparation
- Planting method
- Liming or fertilizer requirements
- Operation and maintenance requirements

VIII. Operation and Maintenance

Field borders require careful management and maintenance for performance and longevity.

The following will be planned and applied as needed:

- Storm damage repair.
- Sediment removal - when 6 inches of sediment have accumulated at the field border/cropland interface.
- Shut off sprayers and raise tillage equipment to avoid damage to field borders.
- Shape and reseeding border areas damaged by chemicals, tillage or equipment traffic.
- Fertilize, mow, harvest, and control noxious weeds to maintain plant vigor.
- Ephemeral gullies and rills that develop in the border will be filled and re-seeded.

IX. References

USDA, NRCS Wisconsin Field Office Technical Guide, Section IV, Conservation Practice Standards and Specifications.

USDA, NRCS, National Job Sheet 386, Field Borders, April 1997.